ED 338 578 SP 033 359

AUTHOR Brylinsky, Jody

TITLE Concerns and Education Regarding Issues of Weight Control and Female Athletes: Body Image and Female Athletes.

PUB DATE 31 Mar 90
NOTE 23p.; Paper presented at the Annual Meeting of the American Alliance for Health, Physical Education, Recreation and Dance (New Orleans, LA, March 31, 1990).
PUB TYPE Speeches/Conference Papers (150) -- Information Analyses (070)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adolescents; *Athletes; *Body Image; Body Weight; Children; Cognitive Development; *Cultural Influences; *Females; Feminism; Physical Attractiveness; *Social Influences; Young Adults
IDENTIFIERS *Eating Disorders

ABSTRACT

An examination of the interaction of social and cultural influences on body image development may yield an explanation for the development of eating disorder behavior, especially in understanding the special problems facing women athletes. There appear to be two major sociocultural factors influencing the development of body image in the population of young women (15-25 years old) most likely to be affected with eating disorders: (1) the onset of the feminist movement which may have contributed to role and identity confusion and (2) the emphasis on thinness for women that emerged during the 1960s. There are three factors that cause disturbance to a smoothly developing body image: biological change; environmental change; and interactional change. As a child matures in thinking abilities, what was once an objective appreciation of body size and physical limitations soon becomes more abstract and qualitative. From that point on, social norms and social experiences dominate the final development of self-image. Increased physical exertion and stimulation tend to facilitate keener body awareness and sense of well-being and therefore enhance satisfaction with body parts. Women athletes clearly indicate more positive feelings toward their bodies than nonathletic women, especially with regard to energy levels and health. Sixty-three references are given. (IAH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED338578

Concerns and Education Regarding Issues of Weight Control and Female Athletes: Body Image and Female Athletes

Jody Brylinsky, PhD
Western Michigan University

Paper Presented at the AAPHERD National Convention
New Orleans, LA
March 31, 1990

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

J. Brylinsky

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

Introduction

Just what is this mysterious concept of body image? Researchers as well as philosophers appear to be unable to operationally define this psychological construct that is so central to our sense of being. It should be simple actually, what we are is what we are. Just as a house is 30' tall our height, weight and shape are undeniable features that even a child can recognize. The awareness that he or she is human within days after birth should indicate that body image is an innate, and recognizable characteristic. But the consistent inaccuracy in which many of us perceive our actual size, body image, and relative attractiveness proves, this is not to be the case.

In a major survey of over 33,000 readers of Glamour magazine (Wooley & Wooley, 1984) when asked which of four given alternatives would make them happiest, 42% of women reported that weight loss would make them happiest, in contrast to 22% of the women who chose success at work, 21% a date with an admirable male, and 15% hearing from an old friend. Research (Hart, Leary, Rejeski, 1989) continues to show that perceptual distortion of physical appearances occurs in people of normal body weight. Over 50% to 70% of college females students misperceive their weight-related appearance, with women consistently overestimating their body size 18% more often than men (Hueneman, Shapiro, Hampton, & Mitchell, 1966). Female college students typically have desired weights that are 14 pounds lighter than their actual weights (Miller, Linke, & Linke, 1980).

It is estimated that over 20 million Americans are seriously dieting at any given moment, spending 10 billion dollars a year in the process (Neuman & Halveson, 1983). Eating disorders have become a common occurrence in today's world. The American College of Sports Medicine (1986 in Desmon, Price, Hallinan, & Smith, 1989) reports that anorexia nervosa and bulimia affect 10% to 15% of adolescent girls, who are mostly white and in an upper economic class. There is the conservative estimate that 8.3% of high school females are binge purgers and the prevalence of bulimia in males has been estimated at between 4 an 5% of USA college population (Brown, Cash, Lewis, 1989).

The relationship between body image disturbance and eating disorders is not as clear as one might expect. Bruch in 1962 (in Slade, 1988) was the first to argue that body image distortions play a fundamental role in anorexia nervosa. The first of her three causal symptoms was referred to as "a disorder of delusional proportions in the body image and body concept". Research in the early 60's 70's consisted of a series of cross sectional and longitudinal studies to better determine the image distortion eating disorder relationship. Results indicated that a)

anorexics markedly overestimate their own body widths while non-anorextics are remarkably accurate, and b) patients paradoxically show an improvement in the accuracy of body size judgments as they gain weight; in fact the extent of overestimation at the time of discharge from in-patient treatment was found to predict future relapse of the eating disorder (Slade & Russell, 1973).

Bulimics' attitudes about their body image are similar to that of anorexic patients, only more consistently so. Bulimics report more dissatisfaction with weight, thinner body ideals, and more negative body attitudes in general, than controls (Brown, Cash, Lewis, 1989). Although patients with bulimia nervosa usually present normal weight appearance, because they compensate for the bulimic episodes with various methods of weight reduction, patients are intensely afraid of gaining weight, and are acutely sensitive to small changes in body weight. They may also be preoccupied with aspects of their body shape, and frequently report that they feel fat (Cooper & Taylor, 1988). Body dissatisfaction tends to be greater in bulimia nervosa patients than in those with anorexia nervosa (Brown, Cash, Lewis, 1989).

Two changes have been reported since the original findings of Slade. First, the accuracy of body image by non-anorectic subjects is not as accurate as first thought, and second that there are several dimensions of body image. Image distorting (a relatively fixed, cognitive attitude to body size, which in anorexics has all the hallmarks of an irrational belief) is quite different than size estimation (a fluid state of body size sensitivity, which is strongly influenced by affective/emotional factors which is responsive to changes in both external and internal environment). Different techniques are necessary to measure these constructs (Slade, 1988).

While many subjects with anorexia nervosa have body image distortions, underestimation of body size or overestimation of body size is not a necessary criterion for diagnosis (Whitehouse, Freeman, Annandale, 1988). Concern with body shape and body shape disparagement may be of greater clinical significance than body image distortion. Negative automatic thoughts about appearance appears to be the best of 20 body image variables in discriminating between eating disorder patients and normals. The Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III), published in 1980 by the American Psychiatric Association describes the essential features of anorexia as an intense fear of becoming obese, disturbance of body image, significant weight loss, refusal to maintain a normal body weight, and amenorrhea in women. The DSM-III criteria for bulimia includes episodic binge eating accompanied by an awareness that the eating pattern is abnormal, fear of not being able to stop eating voluntarily, and depressed mood and self-depreciating thoughts following eating binges. Many anorexic and bulimic patients experience confusion related to affective and visceral sensations such as satiation, hunger,

aversion to sucrose tastes, as well as estrangement from the body, insensitivity to sensations, weakness of body boundaries which persisted after weight gain (Gerner, Garfinkel, Gonato, 1987).

Body image distortion appears to be quite culturally enhanced. Basically, it is the 15-25 year old, middle to upper class, Caucasian, college educated women in westernized countries that make up the bulk of eating disorder populations (Johnson & Maddi, 1986). There is a noticeable lack of minorities in the affected population. Black adolescents were found to be less likely to perceive themselves as heavy, even when they were tested to be so, as compared to whites. Black females believed exercise levels accounted for their weight, while white females attributed their weight to eating habits (Desmon, Price, Hallinan, & Smith, 1989). In one international study, (Toro, Castro, Garcia, Perez, & Cuesta, 1989) attempting to relate anorexic behavior and anorexic attitudes of weight and food to certain sociodemographic variables, social class was not a determinative factor as had been reported in other studies. This finding suggests a growing cultural homogeneity at different socioeconomic levels as far as body esthetics is concerned.

There appears to be two major socio-cultural factors influencing the development of body image in the population of young women most likely affected with eating disorders. The mean age of the population indicates that they are the first generation of young women who were raised at the onset of the feminist movement. This may have contributed to role and identity confusion among at least a subpopulation of the 12-19 year olds (Johnson & Maddi, 1986).

A review of research by Gamer, Garfield, & Olmstead (1983) provides evidence that shifting cultural norms forced contemporary women to face multiple, ambiguous and often contradictory role expectations. These role expectations included accommodating more traditional feminine expectations, such as physical attractiveness and domesticity, incorporating more modern standards for vocational and personal achievement, and taking advantage of increased opportunity for self-definition and autonomy. The wider range of choices may have been overwhelming for some of the adolescents who lacked internal structure, placing them at greater risk for affective instability and eating disorders.

A second cultural shift that emerged with the feminist movement was an emphasis on thinness for women during the 60's. In a milieu of increasing focus on achievement and confusion about how to express the drive to achieve, it appears that the pursuit of thinness emerged as one vehicle through which young women compete among themselves and demonstrate self-control. The pursuit of thinness and avoidance of obesity emerged as a concrete activity through which young women could obtain consistently favorable social responses that held the possibility of enhancing self-esteem (Johnson & Maddi, 1986).

Obviously not every female adolescent develops eating disorder behavior, so the full blame certainly can not lie totally within a cultural explanation. A better analysis may be gained by looking at the interaction of social/cultural influences on body image development, especially in understanding the special problems facing women athletes.

Defining Body Image

In 1935, Schilder (in Hart, Leary, Rejeski 1989) first defined body image as the picture of our body which we form in our mind. Secord and Jourard (1953) later refined this concept to that of body affect (also body esteem) which refers to the degree of satisfaction or dissatisfaction an individual has regarding various aspects of his or her body. The mental picture, or perceptual aspect of body image can be thought of as a blueprint representing one's body as a whole, as well as its parts, including shape, size, and spatial relationships and develops in concert with maturation of the central nervous system (Powers, Schulman, Gleghorn, Prange, 1987).

Schilder (Gerner, Garfinkel, Gonato, 1987) may be credited in 1953 for introducing the concept of body image to the social sciences, expanding the idea of body schema by ascribing psychological and social dimensions to the body image construct. Body image encompasses socially derived attitudes toward particular physical shapes, as well as intrapsychic experiences such as conflicts, defenses as well as beliefs and emotions related to the body. Distorted body image may function at several different levels, ranging from a sensory deficit to various personality features.

Body image is not a 'thing', it is an abstraction. Body image is more than fact and reality, it is also fantasy with feelings and attitudes derived from the value system of the society in which it develops (Shontz, 1974). Develop is a key factor here. Paradoxically body image develops within the actions and experiences of the individual yet at the same time acts as the controlling factor in selecting actions and reinforcing experiences to be used for the development of the being. Physique related perceptions both motivate us toward certain behaviors as well as deter us from certain behavior (Hart, Leary, Rejeski, 1989).

Each of us has two selves, an overt self, representing those aspects which are generally public and visible, namely our physique and behaviors, and secondly a covert or concealed self, or psychological interior (feelings thoughts and wishes). Some individuals are chronically concerned with how others view their physiques, either because their bodies are objectively unattractive or because they hold unrealistic, negative perceptions of their physiques. This construct is now identified as social physique anxiety (Hart, Leary, & Rejeski, 1989). High anxious people will avoid situations in which their physique is under scrutiny of others, becoming

very distressed when their physiques are on display and consequently avoid activities that accentuate their physiques. Social physique anxiety may result in depression related to the perception of the body, in which the individual will attempt to improve their physiques through a variety of means, such as eating disorders.

Development Of Body Image In Infants

Let me begin by asking you to explore a body schema dimension, possibly similar to that of the infant. Place your hands together, interlocking fingers with the person sitting next to you. Hold firmly but don't squeeze. Hold the joined hands upright so that the fingers are clearly visible to both you and your partner. Imagine if you will the complexity of this scene to an infant. Where does one hand stop and another begin? Notice how similar but how different each finger is to each of the others? Are they all fingers? At this time try to move any finger you wish but don't look at your hand. You have some feeling now that it did indeed move. You think to yourself I would like now to be able to control that movement at will, I wonder which one is mine? One of you may now attempt to move the ring finger. With practice, and feedback, this particular body schema becomes more identifiable, the finger is more easily recognized and more easily brought under control. In body image terms, the body boundary is more clearly established.

In the infant, the sense of self includes too much. It encompasses not only the actual body space but also those objects and surfaces close to him or her. Piaget suggests that the infant floats about in an undifferentiated absolute in which there are no boundaries between the body and other objects, between reality and fantasy. But eventually, through experience the infant learns to separate himself or herself from the external world. In other words, he or she more clearly defines the boundaries, locations and positions of the body. Body schema is the basic awareness of the location, positions and boundaries of the body derived from sensory perceptions fed to the sensory and motor areas of the cortex. Body schema is a diagram or map of the body derived from both internal (hunger, cold) and external (see, hear) sensations of the body and the positions of body parts. The infant literally brings all sensations to play in defining the boundaries of the first component of self-concept or the body schema. The body in this stage of development, is a perceptual object in which judgments will reflect theoretically stable processes that operate under available information in such a way as to produce a relatively constant pattern of size, shape estimation, psychological identification, affective and emotional elements pertaining to the body (Shontz, 1974).

Throughout the sensory motor stage of development, afferent feedback from the body actions is used to establish a crude awareness of the dimension and limitations of physical ability.

The ability to grasp and release and place objects in a certain spot indicates a dim awareness of the self that can produce effects by their own action. An infant who has mastered the functional skill of walking has a different perception of body image than when at the crawling stage. As bodily controls become more efficient the child learns to master his or her physical world and these successes then lead to an extension of the boundaries of bodily activity. It is not a well integrated concept, possessing many contradictory perceptions. The infant is most disgruntled when a space is to small for passage or an unknown object being mouthed turns out to be their own foot (Johnson & Maddi, 1986). A child learns very quickly what activities produce parental attention and approval. Body size and shape is the most conspicuous physical attribute during this time.

It is in infancy and early childhood where our unknown factor begins to destroy the natural correlation of body development and body image that leads to eating disorders. The physical mastery of functional skills, such as walking and the resulting cultural recognition of walking, enhances the infant's self-image and possibly self-esteem. The body schema develops into body image, an estimation and evaluation of the physical apparatus in terms of social norms and movement feedback. Enhanced body image derived from precocious physical development gives the child greater latitude and freedom in developing awareness of the self by acknowledging their physical characteristics and later on their capabilities into what has been termed body insight.

A particular body type is capable of eliciting rather common reactions from adults and children. This stems from Sheldon's theory of genetic inheritance, correlating physique and temperament. Thanks to an upsurge in social learning research this stereotypic line of reasoning is no longer acceptable. Yet, people in a child's socializing environment expect specific behaviors or personality traits to be associated with specific body builds and these stereotypes are transmitted to the child so that there will be conformity to the expectations of his or her somatotype in the course of development. It is the feedback from others, plus the knowledge that one's own body build is culturally approved that provides for a positive self image, even in the infant stage. Self concept is not created by a particular body type, but physical appearance does play an important role as far as feedback content is concerned.

Development of Body Image In Childhood

Throughout childhood the child comes to know the body through appropriate changes in sensory perceptual apparatus which are the direct result of motor experience. Body insight is therefore a precursor to body concept. It is the knowledge of spatial needs and identification of body parts that typify body insight activities. While slightly more than half of children five to six years old can accurately identify the major body parts, by age eight or nine this percentage

increases to 100%. With maturation and learning, especially the intellectual ability to verbalize and therefore communicate with others, the infant child becomes less of a demographer, less of a behaviorist, more of a psychological clinician. The child comes to conceptualize the self in terms of more abstract response tendencies or potentials, consisting largely of dispositions or traitsthan during the senory motor stage of development. Body image transform into body concept. It is formed as a multidimensional construct that differs for males and females, having four possible distinct dimensions: evaluation, potency and activity, esthetic, and normality. Each of these dimensions become more or less important throughout the different stages of body image development. Body structure is particularly important in the ego-identity of women, whereas for men what is considered most important is how action oriented and capable the physical being is.

More children are content with their appearance in elementary school than at any other time in life. According to the theory of relative deprivation, individuals who rank high on a desired characteristics will be more satisfied if they are more unusual. Individuals who rank low on a physical trait will be more content with their appearance in elementary school where the desired state of adult appearance is rare and they are more similar to others. When asked what is it that you are most proud of, a younger child will answer on something physical and when asked what is it that you are least proud of 22% will also cite a physical characteristic. The external elements incorporated into early self concept development are experiences representing the outcome of physical effort. The direct relationship between body concept and physical fitness, body build and physical participation varies with the age of the young person, but appears strongest for elementary school age children where they are especially sensitive to strength and general fitness of body. Self worth and self respect, along with self acceptance take form early in life when gross muscle activity is the child's primary way of expressing himself or herself. Guyot and Fairchild's report of fourth, fifth and sixth grade sport participation of boys significantly correlated with all the self concept scores. However, for girls, significant correlations only appeared with total self concept and physical appearance. In general, it appears that participation in youth sports generally mean something different to boys than to girls in relation to their self concept. In addition height and weight seem related to the self concept of elementary girls but not boys.

Possibly the stimulus for a more defined body image is not the movement experience itself, but a greater concern with feedback of the movement. Individuals will repeat movement experiences that are compatible to their body image and reject or fail to repeat movement experiences that are in conflict with their body image. Primary school age children are extremely receptive to both peer and adult input concerning personal performance. They are more ready to

believe and incorporate into the personality those things he/she hears about him or herself than at any other time in their life.

Every child learns that bodily features such as size, weight, strength, complexion or looks are used with often painful accuracy by peers, classmates, teachers and coaches to determine the pecking order in social and athletic activities. Bodily flaws become social liabilities and ever-present potentials for rejection and humiliation (VanderVelde, 1985). Even secondary personality characteristics are affected by perceived body image. For example, the absence of weight control is viewed as a lack of achievement. The overweight child is regarded by others as "responsible" for his or her poor physical condition and the failure to remediate the situation is viewed as a "personal weakness". The projection of negative secondary personality characteristics then carries the connotation of social isolation, and specific antifat prejudice (Wooley & Wooley, 1979).

Children as young as four years old show a stereotypic dislike of endomorphs or obese body structures. Staffieri (1967) investigated the effect of these early stereotypes on personality development. Children as young as six and seven years old had clearly defined expectations for peers based on somatotypes. As mentioned before endomorphs were considered socially offensive and delinquent. Mesomorphs (the muscular and athletic type) were considered aggressive, outgoing, active and having leadership skills. Ectomorphs (thin) were deemed retiring, nervous, shy and introverted. The endomorphic children perceive themselves less popular and often rejected about their corpulent body image. Of course mesomorphic body build was regarded as the ideal male physique, those seven year olds having such a body type were more accurate in that assessment than the other children. Expectations and stereotypes concerning physique appears more firmly established for males despite the popularity of female forms.

Binge-purgers almost always report a childhood history of appearance-related conflicts. Many of these patients self-report being significantly less attractive as children and being more frequently teased about their appearance during childhood (Brown, Cash, Lewis, 1989).

Body Image Development In Adolescence

According to Maslow the self is chiefly salient when is is problemati. People who accept themselves, or feel comfortable with themselves are not likely to keep the self in the forefront of attention. Put another way . . . "if the self fulfills one's expectations, it may remain a peripheral experience, if it falls short it becomes prominent". This may be at the heart of our eating disorder body image relationship.

For most of us our bodily concepts represent an image we carry about with us in the middle ground consciousness. But if we were to wake up one morning and find ourselves six inches taller, 20 pounds heavier, and having different hair color, head shape, and facial structure, we would turn our attention squarely to these points! It is no accident that the most marked changes of early adolescence are not a decline in global self-esteem, although that also happens, but rather a sharp rise in both self-consciousness and self-concept instability. One of the most widely held ideas in behavioral science is that adolescence becomes an extremely difficult psychological period. The new physical capabilities and new social pressures to become independent coincide with many impediments to actual independence.

All this may suggest that adolescence is the greatest risk for eating disorders (Brown, Cash, Lewis, 1989). The rapid change in both actual body image and attitude toward the body, brings probing self-assessment and questioning of self-worth on the part of the adolescent. With advancing age and consistency of circumstance, the shock of the physical change wears off, new expectations are built up and a new equilibrium is reached. The adolescent learns what others expect of him or her, and establishes a more stable view of the body's strengths and weaknesses. The adolescent gains a new appreciation of the self, never to return to the unreflective self of childhood. However, some adolescents do not pass through this period and the frequency of eating disorders during this trying time appears to be epidemic in proportions.

The mature body image is not formed until the age of seventeen and in some individuals is never fully formed. The amount of change in body image will depend in a large part on its original development. Body image is generally resistant to sudden change and there is a difficult reformation process when change does occur. According to Fisher (1970) distortions of body image may appear as sensations of size change (too fat), feelings of being dirty, feelings of loss of body boundaries (clumsy), feelings of depersonalization, and feelings of being unable to perceive the body accurately. All of these disturbances are apparent in descriptive etiology of the obese adolescent.

There are three factors that cause disturbance to a smoothly developing body image, that of biological change, environment change and interactional processes. Biological change, as mentioned before, during the onset of puberty with its surge of sexual desire and its accompanying physical change is a direct and serious challenge to the taken for granted self. It is quite disruptive on personality to view one's own body as dimensionally too different from the desired form. During adolescence more than ever conspicuous and overt changes in the actual self are conceptualized as part of the social exterior. Erickson states that the dangers of this developmental period is that of self diffusion. The body changes in size and shape so rapidly that

genital maturity floods the body and the imagination. Correct self-perception is found to be at its lowest for both males and females at the age of 12. Girls tend to underestimate their real body image, along with younger boys, however, older boys (12-14 years old) overestimate body size. The adolescent male image boundary is better articulated than in the female. In general, the early adolescent tends to underestimate and later in adolescence overestimate body proportions such as hip span and height.

Almost all studies find the timing of physical maturation to be one of the few areas consistently related to body image development. Slower maturing boys are rated by adults as less mature in social situations, less physically attractive, less masculine, more tense and more affectedwith their appearance than early maturers. Early maturers were evaluated as more mature, and demonstrate less need to strive for status. Early developing girls show less positive body image than their late maturing counterparts. Clearly there is no prestigious advantage for females in having a maximum in physical differences with other students. The slower maturing girls are ahead of the boys by three to four years anyway and enjoy social advantages since the American culture favors below height and weight for women. In view of the fact that early-developing girls perceive themselves as less attractive and are more weight-dissatisfied than their peers, early maturation may play an etiological role in eating disorders (Brown, Cash, Lewis, 1989).

Self-consciousness, instability of self-concept, low global self-esteem, high depression, low valued specific self-traits and negative perceived selves, all rise sharply among the 12 year old population. It has been suggested that the cause of such disturbance is the combination of the onset of puberty and the change in school setting, typically from elementary school to junior high. This environmental change exaggerates the degree of difference between real and ideal self image. If the physical changes of puberty closely coincide with major changes in the school context, it may be particularly difficult to establish a positive body image in the face of unstable or changing reference groups. It is the young adolescent with a high self concept who has the most to lose in a changing school environment. The child with a lower self concept is likely to be vulnerable but difficult to sink lower than their present status.

The clearest single finding in the body image literature is that the cultural idea of thinness for women is strong and pervasive. The culture of slenderness leads to values and norms which determine attitudes and behaviors connected to body size, shape and weight, particularly during periods of physical change and the onset and development of secondary sexual characteristics (Toro, Castro, Garcia, Perez, & Cuesta, 1989). Comparison of data with those of earlier surveys suggest that the age at which girls typically begin dieting (14-15 years old), rates of lifetime dieting (72% in high school seniors), and the average weight loss on a diet (10-12 lbs) has

changed little in the past two decades. While many adolescents aspire to be thin and experiment with weight control, a small minority engage in the type of severe weight control of eating disorders. Reported increases in the frequency of eating disorders may reflect an increase in the recognition of eating disorders rather than an increase in dieting exposure (Whitaker, Davies, Shaffer, Johnson, Abrams, Walsh, &, Kalikow, 1989).

Since all adolescents go through this period of self-identity but not all turn to eating disorder strategies to cope, some psychological construct must be present for those affected. There is evidence that changes in cognitive functioning in adolescence may make girls more self conscious constructing and reinterpreting theories about themselves. This process of interaction occurs during a time of increased pressure for peer conformity. The pursuit of thinness and avoidance of obesity emerges as one very concrete activity through which young women can compete and obtain consistently favorable social responses that hold the possibility of enhancing self-esteem (Johnson & Maddi, 1986).

Although there is not a prototype of an eating disorder patient, several personality characteristics appear to be associated with the dysfunction. Anorexia nervosa patients have cognitive distortions such as selective abstraction, over generalization, all or none thinking, magnification, and superstitious thinking. Kolb (1959) speculates that when the value of particular characteristics are ambiguous (this is especially descriptive of the physical changes in early adolescence) the individual's evaluation of these characteristics will depend to great extent on the opinion of others. There is both a comparative reference group and a normative reference group for the adloescent. The norms of society are a reference standard emphasizing thinness, long-legged and physical attractiveness, favoring the late developers. The comparison that adolescents may make has to do with the degree to which they see themselves as maturing and approximating a desired adult status.

Bulimics' attitudes about their bodies have been quite consistent. Bulimics have reported more dissatisfaction with weight, thinner body ideals, and more negative body attitudes than controls (Brown, Cash, Lewis, 1989). Specifically, the lower torso (hips and thighs) was the area of greatest dissatisfaction that most clearly differentiated the groups. Bulimics also demonstrate significant affective instability that is manifested in depressed and highly variable mood states, impulsive behavior (frequently including drug and alcohol abuse), low frustration tolerance, and high anxiety. Although research can't show cause and effect relationships, bulimic patients have long histories of feeling somewhat out of control and perhaps helpless in relation to their bodily experience, which significantly contributes to the second most prominent personality trait among bulimics, low self-esteem (Johnson & Maddi, 1986). To make things worse, bulimics are quite

sensitive to rejection, which results in feelings of social discomfort and nonassertive behavior. Finally, amid these various vulnerabilities, these patients have high expectations of themselves resulting in persistent shame, guilt, and self-criticalness over the repeated discrepancy they feel between their actual self and ideal self (Goodsitt, 1984).

The bulimic etiological model, identifies situations where biological, familial and sociocultural milieus have combined to shape an individual that is at high risk for feeling fundamentally out of control (Johnson & Maddi, 1986). By focusing on their weight, bulimics simply need to weigh themselves to determine if they are in control of their life. Purging and binging behavior can serve a variety of adaptive functions. The purging behavior becomes reinforcing because it allows the individual to avoid the psychological impasse of restrained eating (Johnson & Maddi, 1986).

Binge-purgers also consider themselves to be more poorly psycho-socially adjusted, with a reported childhood history of appearance-related conflicts. Many appear to be more fitness oriented and more appearance oriented than normals (Brown, Cash, Lewis, 1989). Binge-purgers' poor body images are not limited to negative self-evaluations of physical appearance, but also involve unfavorable appraisals of fitness and health, even though they spend more time on it.

For the adolescent it is within this state of uncertainty that body image evolves, as a complex awareness of one's power and weakness to that of one's place in the social context. Freedman (1984) reports that children are socialized to believe that for males, the body is to be developed, strengthened, made more functional. For females, the body is to be preserved, protected and made more beautiful. As a result girls suffer psychologically from negative body image, lowered self esteem and achievement conflict, especially in the areas of physical achievement.

Family Influence On Body Image Development

In a related nature, one of the overriding factors consistently reported in the eating disorder literature is the prevalence of dysfunctional families. While logic might suggest a prevalence of weight pathology in the family of eating disorder patients, research is unable to make this generalization. There was no significant difference between the eating disorder patients and normals when considering family history of aberrant weight and mother's current weight and past weight, including deviations in weight, shape, eating behavior and activity (Hall, Leibrich, Walkey & Welch, 1986).

The strongest eating disorder relationship was with family environment, specifically incidence of depression and alcoholism. Johnson & Maddi (1986) found that 53% of bulimic patients had first-degree relatives with major affective disorders, 45% of 350 relatives also had substance abuse disorders, and 18% of the first and second degree relatives reported histories of alcoholism. Families of bulimic-anorexics were more belittling and appeasing, and less helping, trusting, nurturing, and approaching than those of normals. In addition, these parents gave more negative reinforcement, and more contradictory messages to their daughters, especially around issues of taking control versus autonomy (Humphrey, Apple, & Kirschembaum, 1985).

In summary, the findings indicate that eating disorder families can be generalized as disengaged, chaotic, highly conflicted, with a high degree of life stress. Family members use indirect and contradictory patterns of communication, are deficient in problem solving skills, are less supportive, and are less intellectually and less recreationally oriented-despite their higher achievement expectations. Often in the bulimic patient, family influence leads to the body being hated and rejected as the possession of the parent, the body is a "not me" experience. Often patients reported that their parents would dress them up, place them in given situations, and expected them to perform (Johnson & Maddi, 1986).

Body Image Development In the Young Adult

The two aspects of body image can be distinguished by a) accuracy of body size estimation, and b) feelings toward the body and body parts. These two aspects of body image are differently related to measures of body fat and are measured with different instrumentation (Slade, 1988). There are numerous tests to evaluate the perceptual aspect of body image. The most common are the Image Marking Procedure (Askevold, 1975); Moving Caliper Techniques (Slade & Russell, 1973); Distorted Photograph Techniques (Glucksman & Hirsch, 1969). These methods utilize the production of a distorted image of the "whole body" in estimation of body image. The subject's task is to readjust the image to what they think and feel their body looks like, e.g. distorting mirror, distorting, photograph, distorting television image (Slade, 1988).

Size estimation is a group of methods that require the individual to make judgments about single body parts or body widths (distance across face, waist, hips, etc.) e.g. visual size estimation or movable caliper task, image marking procedure. In the Kinesthetic Size Estimating Apparatus, the subject stands at arm's length from the instrument and is asked to estimate the width of her head, shoulders, waist, and hips at their widest point first by moving the calipers in to the perceived widths and then out to the perceived width. Trials are counterbalanced to avoid practice effects (Slade, 1988). In the Open Door Test (Powers, Schulman, Gleghorn, & Prange,

1987) the subject stands at a door that opens toward her that has no doorknob on the opposite side. The subject is asked to open the door to the smallest width that she thinks would be necessary for her to just squeeze by sideways. A measure to the width to which the door is opened is recorded from a centimeter scale above the door. The subject is asked to stand in the doorway and the actual distance necessary for the subject to pass through sideways is measured.

The various measures of body image are virtually unrelated to each other, and measures of accuracy of body size estimation are unrelated to measures of body fat (Brodie & Slade, 1988). A common defect of studies on the perceptual aspect of body image is that the measures rely primarily on vision, rather than on touch or kinesthesia, which would result in underestimation of body image distortion in eating disorder patients. On the perceptual measures of body image, bulimic subjects overestimated their size on all measures of overall body size and body parts (except face). The most significant differences had certain trends, such as over estimation on hips and waist (Powers, Schulman, Gleghorn, Prange, 1987). In the image distorting or whole body tasks, subjects are most likely to arrive at a judgment through the cognitive processing of many data. By contrast, when the subject is required by the nature of the task to focus on one body part at a time, she/he has greater freedom to respond emotionally (Slade, 1988). The finding that both groups of subjects were more likely to report "distortion when viewing an image that was too thin gives some insight into how subjects decided their body image was not correct. Normal weight females are probably more familiar with weight fluctuations above their normal weight and are less likely to report distortions (Gardner & Moncrieff, 1988).

This may explain why many subjects with anorexia nervosa underestimate body size and that overestimation of body size is not a necessary criterion for diagnosis. Concern with body shape and body shape disparagement may be of greater clinical significance than actual body estimation (Whitehouse, Freeman, Annandale, 1988). Patients with bulimia nervosa frequently report that they feel fat, demonstrating that negative attitudes about body shape may be of greater clinical significance than body size overestimation (Cooper & Taylor, 1988). Gardner & Moncrieff, (1988) report that some anorexics overestimate body size, while some underestimate body size. The mean distortion for all anorexic subjects is 4% greater than actual size.

The attitudinal aspect of body image is evaluated with a different methodology than perceptual size judgments. One such measure, Body Distortion Questionnaire (Fisher, 1970) is an 82 item questionnaire desigred to detect unusual subjective body attitudes and experiences such as the perception of body parts as extremely large or small, body openings as being blocked, and unusual sensations. The Body Parts Satisfaction Questionnaire (Berscheid, Walster, Hohrnstedt, 1973) is a self report questionnaire in which the subject is asked to rate his/her satisfaction with

various parts and features of his/her body. The Color-A-Person Test employs an outline drawing of a female body. The subject is instructed to color in the drawing of a body using five colored felt-tip markers that represent a range of highly positive to highly negative attitudes (Powers, Schulman, Gleghorn, &, Prange, 1987).

Throughout development males and females appear to attach different meanings to their bodies. Men primarily view their bodies as actively functional, as tools that need to be in shape and ready for use. Women primarily see their bodies as commodities, their physical appearance serving as an interpersonal currency (Rodin, Silberstein, Striegel-Moore, 1984).

The confusion in body image extends into our perceived appraisal of attractiveness of others. When males and females were asked to estimate ideal figures the opposite sex would find attractive and the figure that would be most attractive in the opposite sex, both sexes erred in their estimation of what was most attractive to the opposite sex. Women selected a thinner female shape than men had identified as most attractive. Men chose a heavier male figure than that selected by women as most attractive. Women rated their current figure as heavier than their ideal shape and that which would be attractive to males. Males' perceptions of current, ideal, and what was attractive, were nearly identical (Fallon & Rozin, 1985). Consequently, males' perception tends to encourage satisfaction with their bodies, whereas females feel pressure to lose weight, even beyond what they think would be most attractive to men.

Cultural messages concerning gender-appropriate characteristics affect not only concerns about appearance, but eating behavior as well. Women who eat small meals are perceived as more feminine and more attractive than women who eat large meals (Conner-Greene, 1988). In a study comparing eating disorder women and normal women, all eating disorders showed hyperfeminine sex role identifications. In the same study, body weight predicted body image distortion better than other measures of eating pathology (Steiger, Fraenkel, Leichner, 1989). The desire to increase self-esteem through change in body size and shape is the strongest motivation for dieting among males. Since women believe that slenderness is the single most important factor in attractiveness, they tend to diet for appearance rather than health (Andersen, 1986).

What role does physical activity play on Body Image development? Everything! Findings support the position that the attitudinal aspect of body image is an important factor in understanding the psychopathology of eating disorder behavior. Negative evaluations of appearance, coupled with the belief that being physically attractive is a psychologically salient goal to be strived for, may elicit the most marked body-image disturbances (Brown, Cash, Lewis, 1989). Ideal physical image is based on learned cultural norms and stereotypes, which have remained relatively stable despite recent attempts to improve a broader range of role models for

young female athletes. Increased physical exertion and stimulation tends to facilitate keener body awareness and well being and therefore enhance satisfaction toward body parts. This is most noticeable in weight training situations than in endurance or cardiovascular activities. Women athletes clearly indicate more positive feelings toward their bodies than the nonathletic women, especially on energy levels and health.

However, recent studies found that participation in either modern dance experience or verbal discussions about the body did not change the body image of a selected group of college students. Not only was there no improvement as a result of modern dance experience but rather the more modern dance one took, the poorer the body image became. Similar results were found in comparisons with conditioning classes. Female barrier scores have been shown to relate to motor skill tests, yet males are more accurate in body image judgments.

Summary

In summary, females across the board have a preoccupation with their appearance and a concern with avoiding the negative expectations that inevitably follows deviation from the ideal body weight. So what concluding remarks could we make concerning the development of body image and eating disorders. Strong bodies should help develop strong self image which should develop a strong psychological resource for dealing with the often conflicting societal messages concerning physique. As the child matures in thinking abilities, what was once an objective appreciation of body size and physical limitations soon becomes more abstract and qualitative. From here on social norms and social experiences dominate the final development of self image. In an excellent handbook for counselors's and therapists (Neuman & Halverson, 1983) suggest two books to help the eating disorder client repudiate societal standards for body shape and in encouraging valuation of feminine curves: 1) Fat is a Feminist Issue by Susie Orbach, and 2) The Obsession: Reflections on the Tyranny of Slenderness by Kim Cherin.

There is a wide range of therapeutic techniques and strategies developed over the last decade to help individuals combat eating disorders. Some of these include such plans as cognitive role playing, identifying anorexic and bulimic thoughts, relapse work, assertiveness training, and resolution work. Regardless of the plan of attack, the therapist must help the eating disorder patient "reinterpret" rather than "alter" body image. For example, anorexic thoughts such as I'm fat, must be reinterpreted to "I see myself as fat due to my anorexic condition. It doesn't mean I am fat". While the therapy process must attempt to correct body image distortions, it must also help the client restore a sense of control and self-confidence. A genuine and appropriate expression of feelings is necessary for coping skills to be learned.

References

Andersen, A.E. (1986). Males with eating disorders. New Directions for Mental Health Services, 31, 39-46.

Askevold, F. (1975). Measuring body image. Psychotherapeurics and Psychosomatics, 26, 71-77.

Berscheid, E., Walster, E., & Hohrnstedt, G. (1973, Nov). The happy American body: A survey report. Psychology Today, 119-131.

Brodie, D.A., & Slade, P.D. (1988). The relationship between body image and body fat in adult women. Psychological Medicine, 18(3), 623-631.

Brown, T., Cash, T., & Lewis, R. (1989). Body image disturbances in adolescent female binge-purgers: Brief report of the results of a national survey in the USA. Journal of Child Psychology and Psychiatry, 30 (4), 605-613.

Cash, T.F., & Brown, T.A. (1987). Body image in anorexia nervosa and bulimia nervosa: A review of the literature. Behavior Modification, 11(4), 487-521.

Connor-Greene, P. (1988). Gender differences in body weight perception and weight-loss strategies of college students. Women & Health, 14(2), 27-42.

Cooper, P., & Taylor, M. (1988). Body image disturbance in bulimia nervosa. British Journal of Psychiatry, 153 (2), 32-36.

DeBea, E. (1987). Body schema and identity. International Journal of Psychoanalysis, 68 175.

Desmond, S., Price, J. H. Hallinan, C., & Smith, D. (1989). Black and white adolescents' perceptions of their weight. Journal of School Health, 59 (8), 353-358.

Donovan, D. (1989). The paraconscious. Journal of the American Academy of Psychoanalysis, 17 (2), 223-251.

Fallon, A.E., & Rozin, P. (1985). Sex differences in perceptions of body shape. Journal of Abnormal Psychology, 94, 102-105.

Fisher, S. (1970). Body experience in fantasy and behavior. New York: Meredith.

Florin, I., Franzen, U., Meier, M. & Schneider, S. (1988). Pressure sensitivity in bulimic women: A contribution to research in body image distortion . Journal of Psychosomatic Research, 32 (4-5), 439-444.

Franzen, U., Florin, I., Schneider, S., & Meier, M. (1988). Distorted body image in bulimic women. Journal of Psychosomatic Research, 32 (4-5), 445-450.

Freedman, R.J. (1984). Reflections on beauty as it relates to health in adolescent females. Women & Health, 9, 29-43.

Freeman, R., Thomas, C., & Hunter, M.A. (1984). A modified video camera for measuring body image distortion: Technical description and reliability. Psychomatic Medicine, 14, 411-416.

Gardner, R., & Moncrieff, C. (1988). Body image distortion in anorexics as a non-sensory phenomenon: A signal detection approach. Journal of Clinical Psychology, 44 (2), 101-107.

Garner, D.M., Garfinkel, P.E., & Olmsted, M. (1983). An overview of sociocultural factors in the development of anorexia nervosa. In anorexia nervosa: Recent developments in research. New York: Liss

Gerner, D., Garfinkel, P., & Gonato, D. (1987). Body image measurement in eating disorders. Advances in Psychosomatic Medicine, 17, 119-133.

Glucksman, M.L. & Hirsch, J. (1969). The response of obese patients to weight reduction. Psychosomatic Medicine, 31, 1-7.

Goodsitt, A. (1984). Self -psychology and the treatment of anorexia nervosa. In D. M. Garner and P.E. Garfinkel, (Eds.) A handbook of psychotherapy for anorexia nervosa and bulimia. New York: Guilford.

Grant, C., & Fodor, I. (1986). Adolescent attitudes toward body image and anorexic behavior. Adolescence, 21 (82), 269-281.

Hall, A., Leibrich, J., Walkey, F., & Welch, G. (1986). Investigation of 'weight pathology' of 58 mothers of anorexia nervosa patients and 204 mothers of schoolgirls. Psychology Medicine, 16 (1) 71-76.

Hamburg, P. (1989). Bulimia: the construction of a symptom. Journal of the American Academy of Psychoanalysis, 17 (1) 131-140.

Hart, E., Leary, M., & Rejeski, W. (1989). The measurement of social physique anxiety. Journal of Sport and Exercise Psychology, 11, 94-104.

Hesse-Biber, S. Clayton-Mathews, A., & Downey, J. (1987). The differential importance of weight and body image among college men and women. Genetic, Social and General Psychology Monographs, 113 (4) 509-528.

Ho, L., & Walker, J.E. (1982). Female athletes and nonathletes: Similarities and differences in self perception. Journal of Sport Behavior, 5(1), 12-27.

Hueneman, R. Shapiro, L.R., Hampton, M.D., & Mitchell, B.W. (1966). A longitudinal study of gross body composition and body conformation and their association with food and activity in teen-age population. American Journal of Clinical Nutrition, 18, 325.

Humphrey, L.L., Apple, R., & Kirschembaum, D.S. (1986). Differentiating bulimic-anorexic from normal families using an interpersonal and a behavioral observation system. Journal of Consulting and Clinical Psychology, 54(2), 190-195.

Johnson, C., & Flach, R.A. (1985). Family characteristics of bulimic and normal women: A comparative study. American Journal of Psychiatry, 142(11), 1321-1324.

Johnson, C. & Maddi, K. (1986). The etiology of bulimia: Biopsychosocial perspectives. Adolescent Psychiatry, 13. 253-273.

Kolb, L.C. (1959). Disturbances of the body image. American Journal of Psychiatry, 1, 749-769.

Lacey, J., & Birtchnell, S. (1986). Body image and its disturbances. Journal of Psychosomatic Research, 30 (6), 623-631.

Leitenberg H., & Rosen, J. (1988). Cognitive-behavioral treatment of bulimia nervosa. Progress in Behavior Modification, 23, 11-35.

Lundholm, J. (1989). Brief report alcohol use among university females: Relationship to eating disordered behavior. Addictive Behaviors, 14 (2), 181-185

Meerman, R., Vandereycken, W., & Napierski, C. (1986). Methodological problems of body image research in anorexia nervosa patients. ACTA Psychiatrica Belgica, 86 (1), 42-51.

Miller, T. M., Linke, J.G., & Linke, R.A.(1980). Survey on body image, weight and diet of college students. Journal of American Dietetic Association, 77, 561-566.

Murray, J. (1986). Psychological aspects of anorexia nervosa. Genetic, Social and General Psychology Monographs, 112, (1), 5-40.

Nasser, M. (1988).Culture and weight consciousness. Journal of Psychosomatic Research, 32 (6), 573-577.

Neuman, P.A., & Halverson, P.A. (1983). Anorexia Nervous and Bulimia: A Handbook for Counselors and Therapists. New York: Van Nostrand Reinhold Company.

Ordman, A.M. & Kirchenbaum, D.S. (1985). Bulimia: Assessment of eating, psychological, and familial characteritstics. International Journal of Eating Disorders.

Powers, P., Schulman, R.G., Gleghorn, A.A., & Prange, M.E. (1987). Perceptual and cognitive abnormalities in bulimia. American Journal of Psychiatry, 144(11), 1456-1459.

Rodin, J., Silberstein, L.R., & Striegel-Moore, R.H. (1984). Women and weight: A normative discountent. In T.B.Sonderegger (Ed.). Nebraska Symposium on Motivation: Vol 32 Psychology and Gender, 267-307, Lincoln Nebraska, The University of Nebraska Press.

Secord, P.F., & Jourard, S.M. (1953). The appraisal of body cathexis: Body cathexis and the self. Journal of Consulting Psychology, 17 (5), 343-347.

Shisslak, C., Crago, M. & Yates, A. (1989). Typical patterns in atypical anorexia nervosa. Psychosomatics, 30 (3), 307-311.

Shontz, F.C. (1974). Body image and its disorders. International Journal of Psychiatry in Medicine, 5, 150-161.

Slade, P. (1988). Body image in anorexia nervosa. British Journal of Psychiatry, 153, 20-22.

Slade, P. (1985). A review of body-image studies in anorexia nervosa and bulimia nervosa. Journal of Psychiatric Research, 19, 225-265.

Slade, P. , & Russell, G.F.M. (1973). Awareness of body dimensions in anorexia nervosa: Cross sectional and longitudinal studies. Psychological Medicine, 3, 188-199.

Staffieri, J. R. (1967). A study of social stereotype of body image in children. Journal of Personality and Social Psychology, 7(1), 101-104.

Steiger, H., Fraenkel, L. & Leichner, P. (1989). Relationship of body-image distortion to sex-role identifications, irrational cognitions, and body weight in eating-disordered females. Journal of Clinical Psychology, 45 (1), 61-65.

Strober, M. (1981). A comparative analysis of personality organization in juvenile anorexia nervosa. Journal of Youth and Adolescence, 10, 285-295.

Toro, J., Caxstro, J., Garcia, M. Perez, P., & Cuesta, L. (1989). Eating attitudes, sociodemographic factors and body shape evaluation in adolescence. Journal of Medical Psychology, 62, 61-70.

Turnbull, J., Freeman, C., Barry, F., & Annandale, A. (1987). Physical and psychological characteristics of five male bulimics. British Journal of Psychiatry, 150, 25-29.

Vandereycken, W., Depreitere, L., & Probst, M. (1987). Body-oriented therapy for anorexia nervosa patients. American Journal of Psychotherapy, XLI (2), 252-259.

VanderVelde, C.D. (1985). Body images of oneself and others: Developmental and clinical significance. The American Journal of Psychiatry, 142 (5), 526-531.

Wheeler, G., Wall, S., Belcastrio, A., Conger, P., & Cumming, D. (1986). Are anorexic tendencies prevalent in the habitual runner? British Journal Sport Medicine, 20 (2), 77-81.

Whitaker, A., Davies, M., Shaffer, D., Johnson, J., Abrams, S., Walsh, B., & Kalikow, K. (1989). The struggle to be thin: A survey of anorexic and bulimic symptoms in a non-referred adolescent population. Psychological Medicine, 19(1), 143-163.

Whitehouse, A., Freeman, C., & Annandale, A. (1988). Body size estimation in anorexia nervosa. British Journal of Psychiatry, 153 (2), 23-26.

Woodall, C. (1987). The body as a transitional object in bulimia: A critique of the concept. Adolescent Psychiatry, 14, 179-189.

Wooley, S. C., & Wooley, O.W. (1984, February). Feeling fat in a thin society. Glamour, 198-252.

Wooley, S. C., & Wooley, O.W. (1979). Obesity and women: A closer look at the facts. Women's Studies International Quarterly, 2, 67-79.